

1 ENERGY AND WATER DEVELOPMENT APPROPRIATIONS

2 FOR FISCAL YEAR 2005

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4 Wednesday, March 23, 2004

5  
6 U.S. Senate,

7 Subcommittee of the Committee on Appropriations,

8 Washington, DC.

9  
10 The subcommittee met at 2:32 p.m., in room SD-138, Dirksen  
11 Senate Office Building, Hon. Pete V. Domenici (chairman)  
12 presiding.

13 Present: Senators Domenici, Bennett, Craig, Reid,  
14 Feinstein.

15 DEPARTMENT OF ENERGY

16 OFFICE OF NATIONAL NUCLEAR SECURITY ADMINISTRATION

17 STATEMENT OF AMBASSADOR LINTON F. BROOKS, UNDER SECRETARY

18 ACCOMPANIED BY:

19 ADMIRAL FRANK L. BOWMAN, DEPUTY ADMINISTRATOR, NAVAL

20 REACTORS PROGRAM

21 DR. EVERET H. BECKNER, DEPUTY ADMINISTRATOR, DEFENSE

22 PROGRAMS

23 PAUL M. LONGSWORTH, DEPUTY ADMINISTRATOR, DEFENSE NUCLEAR

24 NONPROLIFERATION

25 OPENING STATEMENT OF SENATOR PETE V. DOMENICI

1           Senator Domenici: Good afternoon. This hearing will come  
2 to order.

3           Today, the subcommittee will take testimony on the Fiscal  
4 Year 2005 budget request for the National Nuclear Security  
5 Administration. We will receive testimony from Undersecretary  
6 and Administrator of NNSA, Ambassador Linton Brooks; Deputy  
7 Administrator for Naval Reactors, Admiral Frank Bowman; Deputy  
8 Administrator for Defense Programs, Dr. Everet Beckner; Deputy  
9 Administrator for Nuclear Nonproliferation, Paul Longworth.

10          You have all testified before this subcommittee before and  
11 it is a pleasure to have you here again. I look forward to your  
12 testimony today.

13          For the NNSA, the President has requested \$9 billion, an  
14 increase of 4.4 percent from the current year funding level of  
15 \$8.6 billion. As a percentage, this is a considerable increase  
16 above the 1.2 percent growth in discretionary funding for  
17 Department of Energy.

18          Ambassador Brooks, your responsibilities include the  
19 important job of maintaining our shrinking nuclear stockpile and  
20 to ensure that it serves its essential mission of deterrence.  
21 Funding priorities in this account include continuation of the  
22 stockpile refurbishment activities as well as conducting  
23 important stewardship activities to ensure safety and  
24 reliability, a vital necessity in the absence of underground  
25 testing.

1       Your budget also continues to make the National Ignition  
2 Facility, NIF, a top priority. I am deeply concerned that the  
3 Fiscal Year 2005 budget has slipped the target date for ignition  
4 back to 2014 as a result of numerous technical challenges,  
5 including the cryogenic targets. To date, we have spent \$2 1/2  
6 billion with another \$4 billion that will be spent over the life  
7 of the program. I don't believe it is prudent to continue to  
8 throw good money after bad. I will do everything in my power to  
9 ensure that program managers deal with the most pressing  
10 technical issues before we allow the program to go any further.  
11 In addition, I will work to ensure there are clear and  
12 verifiable programmatic milestones.

13       I was surprised to see the request that nearly \$500 million  
14 is provided for the Robust Nuclear Earth Penetrator. The  
15 Department should not assume such large sums in its budget  
16 without Congressional approval or direction. What we are really  
17 talking about is a stockpile plan. A successful report  
18 validates design feasibility and need and does not force the  
19 inclusion of such a large amount of money. I want it explained  
20 to this committee, unequivocally, so what we are doing and what  
21 we are authorizing and what we are not doing and what we are not  
22 authorizing. Because nobody on this committee is voting to do  
23 this. We are voting to study it if it wins but not to do it.  
24 To study it is a small amount of money. If we do it it is a lot  
25 of money.

1           The budget also provides \$124 million, a 21 percent  
2   increase above current year funding in the safeguards and  
3   security accounts to respond to the new design basis threat.  
4   That new security requirements, that these new ones are driving  
5   costs to such a high level it is diverting limited resource from  
6   other cash-strapped programs within DoE. While I recognize the  
7   need to project this special nuclear material I fear that there  
8   is not a plan to consolidate the nuclear material across NNSA  
9   complex in order to lower our security costs and at the same  
10   time minimize terrorist threats.

11           Ambassador Brooks, I am somewhat disappointed that the  
12   administration has failed to provide the nuclear stockpile  
13   report that was required in the 2004 Energy and Water Bill.  
14   This is an important priority within this bill and I would  
15   appreciate it if you would take the message back to the  
16   Forrestal Building and to the Pentagon that we are eagerly  
17   awaiting that report. Soon this committee will begin developing  
18   our budget priorities. Failure to produce the stockpile report  
19   will have serious consequences for your funding priorities next  
20   year. I need not spend any more time; you had better answer it,  
21   acknowledging that what I am talking about is right and you had  
22   better promise us to fix it or we will have big troubles between  
23   you and this committee, I assure you. This should have already  
24   been done.

25           Finally, I am very discouraged with the funding cuts

1 proposed in 2005 for the Mesa Facility at Sandia and the CMR  
2 replacement facility at Los Alamos. Shortfalls of a serious  
3 budget nature will delay these construction projects, adding to  
4 the costs and limiting the lab's ability to perform critical  
5 stockpile work.

6 Now, I understand you are short of money. You get told by  
7 the OMB what to do but some of this, you know, we are not going  
8 to do what you ask us just because OMB let you, we are going to  
9 do what we think and not let you do some of the things that they  
10 have told you that you can do. I will have my turn on these  
11 laboratories when I ask you the questions. I will just make a  
12 statement ad lib now, that everything that I can now read about  
13 America in the globalization and jobs would indicate that what  
14 this country needs more than anything else is new technology  
15 breakthroughs. And we need them quick. We need new things that  
16 follow on the computer with new technologies. And if I  
17 understand correctly, those come in the fields of micro-  
18 engineering, probably, and nano-science, and the center for  
19 those should have been Mesa. Maybe it still will be but if we  
20 delay it so long it will not be.

21 In addition to maintaining nuclear stockpile, you at the  
22 NNSA also have the important challenge of preventing the spread  
23 of nuclear material, technology and expertise that could be used  
24 to develop and use weapons of mass destructions. The Office of  
25 Nuclear Non-Proliferation works very hard to secure weapons-

1 grade material, prevent the sale of technology used by countries  
2 to develop nuclear weapons.

3 Mr. Ambassador, I must compliment you and Mr. Longworth  
4 and his staff for the [word missing/?] DoE played in disarming  
5 Libya, as well as uncovering the proliferation activities  
6 operated by Pakistan's top nuclear weapons scientist, Abdul  
7 Khan. We congratulate you on that. And we only fail to  
8 understand how Abdul Khan, with what we know he has already  
9 done, is still free. If somebody else in the world had done  
10 that, God knows what would have happened.

11 Another top priority for the office is to ensure the  
12 success of the U.S./Russian MOX program that will dispose of 34  
13 tons of plutonium from each of the Russian and U.S. stockpiles.  
14 I am very pleased, Senators, to have been part of that. Senator  
15 Reid, you remember when I helped put it together and went to  
16 Russia with President Clinton when we put it together, but I am  
17 very, very concerned about the lack of progress in these  
18 negotiations. How long ago did this start? 1998. U.S.  
19 negotiations to work with the Russians where we to try to find  
20 an acceptable solution so we can break ground on this project  
21 and we are hung up over what I think are trivial negotiating  
22 issues. I recently told the White House that maybe they ought  
23 to put some bigger people in the position of negotiating. How a  
24 little issue of indemnification can hold this up is beyond me.  
25 Now I find that indemnification has occurred between Russians

1 and us and some other program where the liability potential  
2 might have been more severe than this, and the Russians came to  
3 the table. They would not have got that one done, if I would  
4 have had anything to do with it, until they get this one done.  
5 This is a way to get rid of a huge chunk of nuclear-grade  
6 plutonium.

7 Admiral Bowman, thank you for your participation in what  
8 may be your last hearing before the subcommittee. I appreciate  
9 your steady hand. The Naval Reactor Program continues to serve  
10 as the world's gold standard for safe and reliable operations of  
11 nuclear power. I am interested to know how your office has been  
12 handed the responsibility of producing the next generation of  
13 space reactors. Traditionally this has fallen to the Office of  
14 Nuclear Energy, which has developed some expertise in these  
15 unique engineering systems. I surmise that part of the reason  
16 it went where it did is that you have more expertise than they  
17 had in the Department.

18 PREPARED STATEMENT

19 Dr. Beckner and Mr. Longworth, I appreciate your  
20 participation and welcome your input.

21 Now I yield to Senator Reid for comments and then we will  
22 proceed. Senator Reid.

23 [The statement follows:]

24 INSERT 8A FOLLOWS-CARRY

1           Senator Reid: Thank you very much, Mr. Chairman. I  
2 welcome you back after the recess. I hope your recess went  
3 well.

4           Senator Domenici: Thank you. It did.

5                         STATEMENT OF SENATOR HARRY REID

6           Senator Reid: Ambassador Brooks, by and large I believe  
7 you and your team are doing a good job. I have met with you on  
8 occasion and you have always been forthcoming in spite of the  
9 rocky start that you and I had regarding your confirmation. I  
10 think you have been candid with me and I have tried to be with  
11 you. I have, as with Senator Domenici, a long tenure on this  
12 subcommittee; we go back to the days of Dr. Reese Hickories  
13 where we were trying to come up with a stockpile stewardship  
14 program. And I think we came up with one to have a safe and  
15 reliable nuclear stockpile, clearly the safest and most secure  
16 of any in the world. And even though I fought Senator Domenici  
17 initially on establishing the entity which you lead, Senator  
18 Domenici was right; I think it has been a tremendous step  
19 forward. And General Gordon did such a remarkably good job, he  
20 has very large shoes to fill, as you know. He had a commanding  
21 personality and his great record, I think, added the prestige  
22 needed to get this new entity started.

23           So, I have reviewed your testimony, budget request, and I  
24 will bet there is not a hearing that I have attended, or will  
25 attend during this budget cycle, that they would not love to



1 have OMB sign off on what you have gotten. I do not know of an  
2 entity that has been treated better than yours that I have seen  
3 this whole year. Your problem is not an inadequate budget  
4 request, your problem is going to be holding on to what you  
5 already have. This subcommittee may be as much as \$1.7 billion  
6 in the hole due to a combination of inadequate funding requests,  
7 especially the Corps of Engineers, budget gimmicks that  
8 certainly are just amateurish and the budget committees have  
9 chosen not to accept these gimmicks.

10 Holding NNSA harmless may not be possible unless the  
11 subcommittee is given a sizeable increase in its allocation. I  
12 read an article during the recess that suggests, Mr. Chairman,  
13 you have secured a commitment from the Majority Leader and the  
14 Chairman of the Budget Committee that our subcommittee will  
15 remain healthy at the end of the budget process. I certainly  
16 hope so. It is not just this subcommittee, it is the entire  
17 Senate that benefits. And having said that, the entire country  
18 benefits from giving us a better budget mark than what we have.  
19 And if that is the case, Senator Domenici, you deserve every  
20 accolade that you can get, and I would be the leading  
21 cheerleader for this if your efforts are successful.

22 Second, Ambassador Brooks, you are going to hear a lot, as  
23 you already have heard, from the chairman of this subcommittee  
24 about a number of things. One of the things I know he is  
25 frustrated about is the National Ignition Facility. And as we

1 look back at the ability of that project to go forward, I have  
2 to say that project would not have gone forward but for Senator  
3 Domenici. I was ready to can that whole thing. But Senator  
4 Domenici and I try to work together on this subcommittee as much  
5 as we can and as a result of our working together we let this  
6 project go forward. And Senator Domenici, having been the lead  
7 person on this, I on a number of occasions will set aside my  
8 personal feelings about what is going on because of his initial  
9 involvement in this. So what I am saying is that I think you  
10 are going to have to take a closer look at NIF because Senator  
11 Domenici certainly is going to take a close look at it. We know  
12 there have been some problems in the latest snafu, and I think  
13 that this is something that we have to look at closely because I  
14 know the chairman is going to look at it closely. NIF has a  
15 large number and unless we get our budget allocation changed we  
16 are going to have to look there for some of the money to take  
17 care of other things.

18 Third, you are requesting expanded funding for a number of  
19 very controversial items: Robust Nuclear Earth Penetrator,  
20 Modern Pit Facility, Advanced Nuclear Concepts Program. Last  
21 year, the House of Representatives, without a word of dissent to  
22 be heard anywhere in the House, slashed funding for these  
23 programs. The Senate bill fully funded them; there was an  
24 amendment offer on the Senate floor to cut the funding. It  
25 failed although it had support of most of the Democratic Caucus.

1 The point I am making is that you need to tread very carefully  
2 here. Congressional support for these programs is not very  
3 strong and I would encourage you to be very candid on a regular  
4 basis with your plans and intentions for all these programs.

5 The memo you sent the laboratories regarding the Advanced  
6 Concepts Program last year, the one that seemed to indicate that  
7 it was okay to move forward as planned regardless of  
8 Congressional guidance, concerns us all. I am willing to give  
9 you the benefit of the doubt that you are not encouraging your  
10 contractors to ignore our intent but I strongly suggest that you  
11 and your staff work very closely with us up here on these  
12 initiatives.

13 I am a little concerned, maybe even put off, by the notion  
14 that you have included a half-a-billion dollars in your out-year  
15 spending plan as what you call a "placeholder" for bunker  
16 busting pending White House and Congressional decisions. I am  
17 not sure that we can allow this to go forward. This is a large  
18 "placeholder." Many of us remain unconvinced that this is an  
19 appropriate path.

20 Finally, on the subject of working with us here in  
21 Congress, our Conference directed you to submit the Revised  
22 Stockpile Plan to us with Fiscal Year 2005 budget request. We  
23 carried these words because we were beyond being fed up with  
24 waiting for the Plan half-a-year ago. The budget request has  
25 been here for nearly 2 months and we still have no sign of the

1 Revised Stockpile Plan. We set that date in consultation with  
2 your staff so we can use that document to assist our financial  
3 decision-making. I am not interested in the story about how  
4 complicated it is to get such an important document signed or  
5 how many people over at the White House or NSA need to read it,  
6 polish it, refine or rewrite it; it is just way overdue and we  
7 need to get the document up here. I might even suggest that we  
8 write a bill that fences off every dollar above current year  
9 levels for NNSA until this is provided. And I hope this gets  
10 the White House's attention. And I am convinced, Ambassador,  
11 that this is not you personally holding this up and you need not  
12 comment on that. But sometimes we get a little put-off by  
13 someone who is a Secretary or an administrator such as you are  
14 who comes here and says to us privately, well, I'm not the one  
15 holding this up. And you are the person that we look to.

16 So, I want to thank each of your deputies for being here;  
17 Dr. Beckner, Admiral Bowman, Mr. Longworth, we appreciate that  
18 very much.

19 PREPARED STATEMENT

20 The chairman's not here so the acting chairman, Senator  
21 Bennett, I would ask permission of the chair to be able to  
22 submit questions in writing and would ask that you, the  
23 witnesses, get back to the subcommittee within 10 days. We have  
24 a little parliamentary problem on the floor that I am going to  
25 work on.

1           Senator Bennett [presiding]: Without objection.

2           Senator Reid: Thank you very much.

3           [The statement follows:]

4   INSERT 13A FOLLOWS--CARRY

## 1 STATEMENT OF SENATOR ROBERT F. BENNETT

2 Senator Bennett: Thank you, Senator Reid, very much.

3 When the Chairman returns I will make it clear that I hope  
4 to have more than a single round of questioning because I have a  
5 number of concerns that I want to raise and a number of issues  
6 that I think have to be made very clear for the record.

7 I assume you know the history of southern Utah with respect  
8 to nuclear testing in Nevada. It goes back to the 1950's and  
9 the 1960's, and Utahans were not only let down by their  
10 government, quite frankly, Utahans were lied to by their  
11 government. Things that were done in those periods in  
12 retrospect are incomprehensible. Students were let out of  
13 school and taken out to the schoolyard to stand in the open air  
14 and look for the flash of the above-ground test and then watch  
15 the cloud as it went over. And the incidence of cancer and  
16 other problems that occurred among people who lived down-wind  
17 from the Nevada testing site has been well documented and  
18 Congress has taken actions with it and I will not review all of  
19 that past. But I think if you are not familiar with that past  
20 you should be and therefore understand why the people of  
21 southern Utah, in particular, are very suspicious of anything  
22 the government say[s/?] about nuclear testing, above-ground or  
23 below-ground, and for that reason, Mr. Chairman, I intend to use  
24 this opportunity to ask a number of questions, quite pointed. I  
25 expect that I will get direct answers so that they will be

1 firmly on the record and there will be no ambiguity about some  
2 of this.

3 Now, while I speak with that background as the Senator  
4 representing Utah, I want to make it clear that my concern for  
5 the safety of the people of Utah is not limited to Utah. I, as  
6 a Senator, must be concerned about the safety of all of the  
7 people who will be down-wind from any test that will occur, and  
8 that would include not only everybody in the United States but  
9 given the jet stream and the way we now understand the weather  
10 goes around the world, accidents or sloppiness in testing in  
11 Nevada can affect far more than just Utah. So while I speak  
12 here as the Senator for Utah I want to make it clear that I want  
13 to be sure that health and safety for everyone in America, and  
14 to the degree it gets beyond our shores, to the rest of the  
15 world becomes the primary concern. And I know that none of you  
16 were involved in the things that were done back in the 1950's  
17 and 1960's when the government lied to its citizens in that part  
18 of the world and that is fine.

19 PREPARED STATEMENT

20 But that means that we must be even more circumspect and more  
21 penetrating in our attempts to make sure that this  
22 administration does not repeat, in any way, either inadvertently  
23 or deliberately, the things that have happened in the past.  
24 There is still a great deal of skepticism among those who live  
25 in southern Utah about any government pronouncement on this

1 issue and that is why, Mr. Chairman, I intend to be fairly  
2 penetrating in the question period. And I said before you came  
3 I hope we will have more than one round so that I will have time  
4 to explore all of this properly.

5 [The statement follows:]

6 INSERT 16A FOLLOWS-CARRY



1           Senator Domenici [presiding]: Senator, if we do not finish  
2 and you need some more, we would turn the committee over to you  
3 and you can spend the whole afternoon.

4           Shall we proceed? Do you need to make an opening  
5 statement, Senator?

6           Senator Feinstein: I do, Mr. Chairman. I hate to tell  
7 you.

8           Senator Domenici: Well, we were not going to have them but  
9 I got out of here and it got started. So we have got to let  
10 you.

11          Senator Bennett: When you relinquished the gavel for 30  
12 seconds I took advantage of it.

13          Senator Domenici: Go ahead.

14          Senator Feinstein: Thank you very much.

15          Senator Domenici: We want to be brief.

16                       STATEMENT OF SENATOR DIANNE FEINSTEIN

17          Senator Feinstein: I will try very hard to be brief but I  
18 think as Mr. Brooks knows I have very strong views on the  
19 proposed nuclear program and I wanted to make a couple of  
20 comments about it. Ambassador Brooks was nice enough to spend  
21 some time with me in my office, and I appreciate that very much,  
22 and went over his views of what the program is. The more I read  
23 about the program the more I believe it is something else and I  
24 would characterize that something else by saying it is a  
25 reopening of the nuclear door.

1           Just where you sat last year Secretary Abraham sat. He  
2   said we have no intentions of proceeding with new nuclear  
3   weapons. Secretary of Defense, on Defense Appropriations, came  
4   before us and said in vague 2003 that the Robust Nuclear Earth  
5   Penetrator is a study, it is nothing more and nothing less. And  
6   then, if you look to follow the money, I think you see that it  
7   is much more than that. This year's budget request includes the  
8   [?/?]27 1/2 million for the Earth Penetrator, the [?/?]9 million  
9   for the so-called Low-Yield Weapons, and the \$30 million for the  
10  Modern Pit Facilities to make 450 new pits, which as you know we  
11  discussed and you said there was no way of knowing whether we  
12  need this kind of improvement in the Pit Facility. And the  
13  Revised Stockpile Plan has not yet been presented to the best of  
14  my knowledge. But if you look at the Congressional Research  
15  Service, they now report that the administration's own long-term  
16  budget plan includes \$485 million for the Robust Nuclear Earth  
17  Penetrator between 2005 and 2009. I think that number casts  
18  doubts on the contention that this is just a study and that all  
19  we are doing is just a study. Because I do not believe there  
20  can be a commitment of nearly \$500 million for just a study.  
21  And I think it means that the administration is determined to  
22  develop and field a new generation of nuclear weapons. And this  
23  Senator is strongly opposed to that.

24                               PREPARED STATEMENT

25           I think by seeking to develop new nuclear weapons, and as

1 indicated in the Nuclear Posture Review, a new doctrine that  
2 considers nuclear weapons in the same category as conventional  
3 weapons, the United States is sending a message that nuclear  
4 weapons have a future battlefield role and utility. And by  
5 doing so I believe we are going to make our Nation and our  
6 allies less secure, not more secure. And if the United States  
7 opens the door to the development, testing and deployment of new  
8 nuclear weapons. So I am just here to kind of follow this thing  
9 along and I am going to try to oppose it at every step of the  
10 road because I do not believe the American people want to  
11 support a new generation of nuclear weapons.

12 [The statement follows:]

13 INSERT 19A FOLLOWS—CARRY

1           Senator Domenici: Sorry, whoever that was, if you do that  
2 again we will ask that you leave. We do not have applause here,  
3 singular or multiple. In fact, I am almost to ask who it was  
4 now and ask that you leave. But I will not but if you do it  
5 again we will get you out of here.

6           Well, let me first say, so there is no misunderstanding, I  
7 do not favor a new round of the development of nuclear weapons.  
8 I think I am just as firm on that as is the distinguished  
9 Senator from California. But I do believe research is not  
10 static with reference to nuclear activity. And so we will go  
11 into this a little more and ask whether we can actually ask our  
12 great scientists to just close their minds to these issues and  
13 say they cannot study them even if they fall right before their  
14 face. So we will have our arguments. California Senator can  
15 contend we are building new weapons; I will contend we are  
16 researching them. She can contend we are paying for [\$/?]500  
17 million worth; I will say we are going to vote for a small  
18 number and no more in the language of dollars, and the language  
19 will say what it is for and no more. So with that, I would like  
20 to proceed.

21           What is your pleasure? Shall we start with the Ambassador?  
22 All right, Mr. Ambassador, please procede.

23                         STATEMENT OF AMBASSADOR LINTON F. BROOKS

24           Ambassador Brooks: Thank you, Mr. Chairman. I want to  
25 thank the members for their support for our national security

1 efforts. I have prepared some detailed written testimony I  
2 would like to submit for the record, and I would like to  
3 summarize that now. And I would like it if Admiral Bowman could  
4 follow me and talk about the Naval Reactors portion which I will  
5 not cover.

6 Senator Domenici: On the record.

7 Ambassador Brooks: As you said in your opening statement,  
8 the Fiscal Year 2005 request totals just over \$9 billion, which  
9 is a 4 percent increase over 2004 and is consistent with the  
10 long-range plan presented to the Congress last year. For  
11 weapons activities we're seeking \$6.5 billion. That will  
12 maintain the safety and reliability of the nuclear weapons  
13 stockpile, enhance stockpile surveillance in the engineering  
14 base, refurbish and extend lives of weapons, maintain an R&D  
15 base and support the facilities and infrastructure that are  
16 necessary. I am pleased with the ability of the Stockpiles  
17 Stewardship Program to certify the safety, security and  
18 reliability of our aging nuclear weapons and I'm pleased that we  
19 can do that without having to consider returning to underground  
20 nuclear testing. And the cutting edge scientific and  
21 engineering tools that we are requesting in this budget will let  
22 us continue these certification efforts with the same kind of  
23 confidence.

24 We are extending the life of several existing weapons; that  
25 life-extension program is proceeding well. This year we will

1 complete the life-extension for the W87 ICBM warhead and we  
2 expect to meet DoD schedules for the submarine launch of  
3 ballistic missile W76, the B61 bomb and the W80 cruise missile.  
4 The National Ignition Facility will perform its first Stockpile  
5 Stewardship experiment this year using four of its eventual 192  
6 laser beams. We have recently devised a strategy that will  
7 ensure ignition experiments begin in 2010 as previously planned.  
8 During the question and answer period we can explain technically  
9 why that now appears feasible.

10 Our Advanced Simulation Computing Program will deliver two  
11 new machines, one this year, one next year, which will be the  
12 fastest computers in the world and, more importantly, will help  
13 us provide important data on the health of the stockpile.

14 The Nuclear Posture Review gave infrastructure equal  
15 priority with offensive and defensive forces. We have two  
16 accounts in the budget that are essential to our ability to  
17 maintain such an infrastructure. Readiness and Technical Base  
18 and Facilities provides the funding to operate and maintain our  
19 facilities over the long-term. In contrast, there's a  
20 Facilities and Infrastructure Recapitalization Program which is  
21 a get-well program the Congress authorized designed to eliminate  
22 maintenance backlogs this decade. We expect to meet our goal of  
23 eliminating those backlogs and have the so-called per-program go  
24 out of existence shortly after the end of the decade. These two  
25 programs are fixing the backlog and restoring the weapons

1 complex. They're crucial and I urge the committee to fully  
2 support them.

3 Now, these programs allow us to maintain the stockpile for  
4 the next decade. Nuclear Posture Review recognized the need  
5 over the long-run to design and build a modern pit facility.  
6 That's a poor term, it might better be called a Pit Rework  
7 Facility. It'll support the pit remanufacturing needs to  
8 stockpile. It's important to understand we need this facility  
9 even if the United States never produces another nuclear weapon  
10 of any kind. All existing plutonium pits will ultimately need  
11 to be rebuilt due to aging effects caused by the radioactive  
12 decay of plutonium. Last year's conference requested that we  
13 delay issuing the final impact statement in selecting a site for  
14 the Modern Pit Facility pending the submission of the Revised  
15 Stockpile Plan that was referred to in several of the Members'  
16 opening statements. This decision to delay site selection  
17 doesn't affect our very limited efforts at Los Alamos to  
18 manufacture a W88 pit nor to reestablish the capability that  
19 we've not had in almost 15 years. We're on schedule to produce  
20 a War Reserve Pit for our Trident-2 missile by 2007.

21 Now, I have no reason to doubt the ability of the Stockpile  
22 Stewardship Program to continue to ensure safety, security and  
23 reliability. But we must maintain our ability to carry out a  
24 nuclear weapons test in the event of some currently unforeseen  
25 problems that can't be resolved by other means. Our Fiscal 2005

1 request allows us to meet the requirements of the Defense  
2 Authorization Act to achieve by October, 2006, a readiness to  
3 conduct an underground test within 18 months. The President's  
4 made it very clear we have no intention of resuming testing.  
5 Our plan is to improve test readiness, our prudent hedge against  
6 the possibility of a problem arising in the stockpile that can't  
7 be confirmed or fixed certified without a nuclear test. I also  
8 want to make it clear that much of the money that we are  
9 requesting goes to ensure, through very detailed analysis, the  
10 absolute safety of any hypothetical future nuclear test. We are  
11 extremely conscious of our safety responsibilities and intend to  
12 ensure that if it ever becomes necessary to resume nuclear  
13 testing we can do so safely.

14 The programs I have described let us maintain the stockpile  
15 and correct unforeseen problems. Nuclear Posture Review also  
16 highlighted the importance of ensuring the weapons complex can  
17 adjust to changing requirements of nuclear deterrents in the  
18 coming decade. We're requesting \$9 million, about one-tenth of  
19 1 percent of our budget, for research on advanced concepts and  
20 we're requesting, as has been mentioned by several Members, \$27  
21 million to continue the Nuclear Earth Penetrator feasibility  
22 study.

23 There's been a great deal of discussion on the implications  
24 of these programs and I'd like to comment on them in a little  
25 more detail. Some of the discussion has been based on a



1   misunderstanding of our intent.  In his opening statement, the  
2   Ranking Member specifically noted one reason for that, a poorly  
3   written memorandum that I sent in December.  I'd be delighted to  
4   submit, for the record, that memorandum, a criticism of it by  
5   another committee and my response, in order to make it clear  
6   that what we have here is poor drafting and not an attempt to  
7   thwart the will of the Congress.

8           We intend to use our Advanced Concepts funds to  
9   investigate--

10          Senator Domenici:  Are you going to make those a part of  
11   the record?

12          Ambassador Brooks:  Yes sir, if I may.

13          Senator Domenici:  Yes, please do.

14          [The information follows:]

15   INSERT 25A TO COME--CARRY

1           Ambassador Brooks: We intend to use Advanced Concepts  
2 funds to investigate new ideas, not necessarily new weapons.  
3 For example, with that portion of the Advanced Concepts money  
4 which is not held in abeyance pending the Stockpile Plan we will  
5 begin to examine the feasibility of adapting an existing nuclear  
6 weapon to provide a Cruise Missile capability that involves  
7 enhanced safety and use control. We are also looking at  
8 improving warhead design margins in order to ensure high  
9 confidence in warhead reliability. We're also in discussion  
10 with the Air Force on examining the utility of nuclear weapons  
11 against chemical and biological agents although we've made no  
12 decisions to study this area. Specific uses of the proposed  
13 2005 funds will be determined jointly with the Department of  
14 Defense.

15           Perhaps the single most contentious issue in our budget is  
16 continued funding for the Robust Nuclear Earth Penetrator study.  
17 The study is to determine whether existing warheads, either the  
18 B61 bomb or the B83 bomb, could be adapted without nuclear  
19 testing to improve our ability to hold at risk hardened and  
20 deeply buried facilities. I want to make several points about  
21 this effort.

22           First, there's a clear military utility to this weapon.  
23 Classified Defense Department report was submitted to the  
24 Congress last year on this subject and remains valid.

25           Secondly, despite this obvious utility to the capability we

1 will move beyond the study stage only if the President approves  
2 and if funds are authorized and appropriated by Congress. We  
3 included funds in our out-year projections only to preserve the  
4 President's option. There won't be any decision made until the  
5 study is completed. What we are asking the Congress to do this  
6 year is approve the continuation of the study. The law is  
7 extremely clear that beginning development engineering requires  
8 Congressional approval and there's no one in the administration  
9 who has any doubt of or objection to that feature of the law.

10 Finally, even if the study shows that it's feasible and the  
11 President decides to pursue it and the Congress decides to fund  
12 it, this weapon does not represent a change from our policy of  
13 deterrence. Deterrence requires that we be able to hold at risk  
14 something that an adversary values. Now, I refer you once again  
15 to the classified report where we speak and the Department of  
16 Defense speaks in specific detail of the potential deterrent  
17 benefits of this weapon.

18 As the Congress evaluates our request it's important to  
19 understand that while there have been press accounts of  
20 administration plans to develop low-yield weapons, there are no  
21 such plans. Further, nothing we will do is intended to lower  
22 the nuclear threshold or blur the distinction between nuclear  
23 and non-nuclear weapons. Indeed, the Nuclear Posture Review  
24 intend is to place greater emphasis on conventional weapons  
25 rather than nuclear weapons.

1           I repeat, as I have said to this committee before, only the  
2 President can authorize the use of nuclear weapons and no  
3 President would make that decision except in the gravest of  
4 circumstances.

5           Let me turn now to Defense Nuclear Nonproliferation. We're  
6 asking for \$1.35 billion to support activities to reduce the  
7 global danger. We're not doing this alone; our GA partners have  
8 committed to spend \$10 billion to help decrease the global  
9 proliferation threat over the next 10 years. The largest  
10 program in this area involves the disposition of surplus U.S.  
11 and Russian plutonium. As you mentioned in your opening  
12 statement, Mr. Chairman, one of the key obstacles we encountered  
13 is a disagreement with Russia regarding liability protection for  
14 plutonium disposition work performed in that country. At the  
15 present time this disagreement has resulted in a 10-month delay  
16 in the start of construction of the Mix Oxide, or MOX, Fuel  
17 Facility in Russia as well as the facility in the United States.  
18 The issue is being worked at the highest levels of the  
19 administration; the President's 2005 budget request supports  
20 construction of both U.S. and MOX facilities starting in May of  
21 next year and I am hopeful that we will resolve the liability  
22 issue shortly, as soon as the new Russian government is fully  
23 organized.

24           Senator Domenici: Who is your negotiator?

25           Ambassador Brooks: The Undersecretary of State for Arms

1 Control, John Bolton, has been the primary lead; Secretary of  
2 State has also been involved.

3 In addition to disposing of existing stocks surplus  
4 weapons-grade plutonium, we're working hard to stop more from  
5 being produced by shutting down the last three plutonium  
6 production reactors in Russia and replacing them with fossil  
7 fuel plants. That will result in halting annual production of  
8 about 1.2 metric tons of weapons-grade plutonium, roughly a bomb  
9 a day. We are preparing preliminary designs for the fossil fuel  
10 replacement plants, validating cost estimates and we expect to  
11 complete these designs by the end of the calendar year, at which  
12 time we'll be able to provide the Congress with revised and firm  
13 cost estimates.

14 Given recent threats to the United States it's **[it has/?]**  
15 become increasingly clear that protecting and securing nuclear  
16 materials and detecting nuclear radioactive materials destined  
17 for the United States at foreign ports, airports and border  
18 crossings is a high priority. Our budget request for material  
19 protection control and accounting, which includes our Second  
20 Line of Defense Program and our Mega-Ports Program is **[\$/?]**238  
21 million. Of that, **[\$/?]**15 million will go toward moving ahead  
22 with our Mega-Ports Program to train law enforcement officials  
23 and equip key international ports with radiation detection  
24 equipment. We expect to complete work at ports in Greece and  
25 the Netherlands by late summer in 2004. In addition, also under

1 Material Protection, we have made a number of improvements in  
2 the security of the Russian Nuclear Navy and are now focused on  
3 improving security of Strategic Rocket Forces sites.

4 In Fiscal Year 2005, we will assume, NNSA will assume,  
5 responsibility for the off-site Source Recovery Project. The  
6 requested program funded is [\$/?]5 1/2 million, with a total  
7 cost of about [\$/?]40 million to substantially reduce the risk  
8 of source materials within the United States being used for  
9 radiological dispersion devices. And we're working closely with  
10 the U.S. Nuclear Regulatory Commission.

11 Our budget reflects our continued support for the  
12 International Atomic Energy Agency and it reflects a renewed  
13 emphasis on retrieving material with weapons potential from  
14 research reactors worldwide. We've been working to secure  
15 materials in Russia and Eurasia for over a decade and our  
16 programs have now expanded beyond Russia as a result. We've  
17 worked to return both U.S.- and Russian-origin highly enriched  
18 uranium to convert civilian reactor cores to use lowly-enriched  
19 uranium which is of less proliferation concern and to secure and  
20 remove vulnerable nuclear and radiological materials. Our  
21 efforts are paying off. By the end of this year almost half of  
22 the 98 targeted reactors will have been converted to use low-  
23 enriched uranium fuel. In 2002 the Department assisted in the  
24 removal of vulnerable nuclear material from Yugoslavia. In 2003  
25 we helped return 17 kilograms of Russian-origin highly-enriched

1    uranium from Bulgaria, 14 kilograms of Russian highly-enriched  
2    uranium from Romania; we're now working with Libya and have  
3    recently helped remove highly-enriched uranium from that country  
4    as well. In Iraq, the Department is securing and disposing of  
5    vulnerable radiological sources. To help coordinate all this  
6    last year we established a Nuclear and Radiological Threat  
7    Reduction Task Force to combat the threat posed by so-called  
8    dirty bombs. This task force will identify, secure and  
9    permanently dispose of high risk radiological materials by  
10   identifying the most vulnerable research reactors and let us  
11   develop an action plan to mitigate these vulnerabilities  
12   overseas.

13       Senator Domenici: Who will lead that committee?

14       Ambassador Brooks: Mr. Longworth will be in overall  
15   charge.

16       In all this we have strengthened the security of our Nation  
17   and I believe we're making the world safer.

18       Senator Domenici: Mr. Ambassador, I know you have a lot to  
19   say but you told us you were going to brief it.

20       Ambassador Brooks: Yes sir, I've got two more points to  
21   make and then I'll quit, if I may.

22       Senator Domenici: All right.

23       Ambassador Brooks: I want to just mention safety and  
24   security. That's one of Secretary Abraham's and my highest  
25   priority. Our request includes an increase over the past to

1 deal with the safety and security consequences of the Design  
2 Basis Threat and I believe that we are well on track to meet the  
3 Secretary's guidance to have improvements in place by the end of  
4 next year.

5 PREPARED STATEMENT

6 Finally, let me just say that our budget is consistent with  
7 the President's policy to reduce reliance on nuclear weapons.  
8 It supports continued progress in certifying our nuclear  
9 deterrent and reducing the danger from proliferation. And it  
10 will enable us to continue to maintain safety and security  
11 through the 21st century.

12 This concludes my statement. After you've heard from  
13 Admiral Bowman I'm ready for your questions, sir.

14 [The statement follows:]

15 INSERT 32A FOLLOWS-CARRY



1           Senator Domenici: Thank you very much. Are you next,  
2 Admiral?

3           Admiral Bowman: Yes sir.

4           Senator Domenici: Please proceed.

5                         STATEMENT OF ADMIRAL FRANK L. BOWMAN

6           Admiral Bowman: Mr. Chairman and members of the committee,  
7 thank you very much for the opportunity to testify, as you said,  
8 Mr. Chairman, maybe one last time before this committee in my  
9 last of 8 years as Director of Naval Reactors.

10          Sir, with your permission I would like to submit a detailed  
11 statement of **[for/?]** the record.

12          Senator Domenici: Please do.

13          Admiral Bowman: And also the normal environmental,  
14 radiation and occupational safety health reports.

15          Let me begin by thanking you and the Committee for the  
16 support you've continued to provide the Naval Nuclear Propulsion  
17 Program, and Senator Domenici, especially, on a personal note,  
18 your support of me and my program for these years. Many of the  
19 impressive capabilities of our nuclear-powered ships were  
20 developed with funding that was supported by you. As you know,  
21 nuclear propulsion provides the mobility, the flexibility and  
22 the endurance that today's Navy needs to meet a growing number  
23 of important missions with fewer and fewer ships.

24          Today our ten nuclear-powered aircraft carriers continue to  
25 be the centerpiece of U.S. military presence worldwide in

1 support of our interests and commitments. In war they deliver  
2 strike sorties, protect friendly forces and engage in sustained  
3 combat operations.

4 Our 54 operational attack submarines are the envy of navies  
5 around the world. Because of their stealth, endurance,  
6 mobility, firepower and multi-mission flexibility they guarantee  
7 access to the world's oceans and littorals, monitor those who  
8 may act counter to our interests and conduct reconnaissance in  
9 preparation for conflict. In the event of hostilities they  
10 conduct Tomahawk strike missions, deploy and support special  
11 operations forces and destroy enemy ships and diesel submarines.

12 Our 14 Trident ballistic missile submarines, down from 18  
13 as a result of the last NPR, are the most survivable and  
14 efficient leg of our strategic deterrent arsenal and continue to  
15 represent a cornerstone of our national security.

16 And then finally, the deep-diving, nuclear-powered research  
17 submarine, NR-1, provides unique military mission support to the  
18 Navy and valuable oceanographic research to the scientific  
19 community.

20 When I testified before this committee last year, Mr.  
21 Chairman, our Armed Forces had been engaged in Operation Iraqi  
22 Freedom for 3 weeks. I reported then that our nuclear-powered  
23 warships were playing a leading role in combat operations. My  
24 written, detailed statement reports more details of the superb  
25 performance of our ships and their crews. Today our nuclear-

1   powered fleet is deployed around the world, protecting our  
2   interests, deterring aggression and continuing to fight  
3   terrorism. At the center of this new surge Navy, our nuclear-  
4   powered warships are ready for any and all missions our Nation's  
5   leaders may direct.

6       As we look to the near future, the first of the Virginia-  
7   class attack submarines will be delivered this summer,  
8   remarkably close to the schedule established over a decade ago.  
9   You recall that the operational requirements document for that  
10  Virginia-class was approved some 4 years after the fall of the  
11  Berlin Wall. As such, the Virginia-class is the first submarine  
12  designed specifically for post-Cold War missions. It's designed  
13  to prevail in both the littorals and the open ocean.

14       Our work also continues on the design of the nuclear  
15  propulsion plant for the CVN-21, the next generation class of  
16  aircraft carriers. The modern technologies of this design will  
17  enable increased war fighting capability and operational  
18  availability with lower life cycle costs.

19       We're also continuing work on the Transformational  
20  Technology Core-TTC. It will use new core materials, new  
21  reactor materials, to achieve a greater energy density, more  
22  energy in the reactor without increasing the size, weight or  
23  space and at a reasonable cost for future Virginia-class  
24  submarines. That TTC core is a direct outgrowth of the Programs  
25  advanced reactor technology work, funded by this committee. It

1 will also be a stepping stone for future reactor development.

2        Though new designs are important, Naval Reactors' number  
3 one priority is ensuring that the men and women at sea defending  
4 our Nation are operating safe, effective and reliable nuclear  
5 propulsion plants. Most of Naval Reactors' funding is devoted  
6 to this.

7        With your vital support, I'm confident we will continue to  
8 build on our success. Naval Reactors' Fiscal Year 2005 DoE  
9 budget request is for about \$798 million, an increase of 3  
10 percent after inflation compared to Fiscal Year 2004. The  
11 funding increase mainly supports the continued development of  
12 the Transformational Technology Core.

13                                PREPARED STATEMENT

14        Mr. Chairman, as the Director of Naval Reactors for the  
15 last 7 1/2 years, I can assure you that the ongoing support of  
16 your committee is one of the most important factors in our  
17 success story. The unique capabilities inherent in nuclear  
18 power have played a vital role in our Nation's defense over the  
19 past 50 years. This legacy is strong and vibrant today as ever.  
20 Our Navy continues to face a growing need for power projection  
21 and forward presence far from home, which places even greater  
22 demands on our nuclear fleet. With your continued support Naval  
23 Reactors' success will continue far into the future. Our record  
24 is strong, the work is important and the funding needs have been  
25 very carefully scrubbed by me personally.

1           Mr. Chairman, other Members of the committee, I thank you  
2 very much for your continued support.

3           [The statement and information follow:]

4   INSERT 37A FOLLOWS—CARRY

5   INSERT 37B TO COME—CARRY

1           Senator Domenici: Well Admiral, I'll just tell you the  
2 truth. We serve around here as elected officials and we meet  
3 people who give their lives to the government and do services  
4 for our people. And sometimes we run into some that we do not  
5 know what to tell them in terms of how much we appreciate them.  
6 We use the typical words but they are not enough. But we really  
7 think the United States Navy's use of nuclear power is one of  
8 the most fantastic achievements of mankind. And when they have  
9 done it since Nautilus without one single nuclear mistake and  
10 have had as high as 123, I think, nuclear reactors floating  
11 around the oceans of the world, it is tremendous. And you are  
12 in charge of that and you made it go along just like it had  
13 been, or better. We do not need any accolades or thanks from  
14 you because they all run the other direction.

15          Admiral Bowman: Thank you, sir.

16          Senator Domenici: Now, who is next? The other two do not  
17 need to testify?

18          Ambassador Brooks: No sir, that's why I was so long, I was  
19 doing for all three of us.

20          Senator Domenici: All right. Well, I am going to ask a  
21 few questions and yield to you two Senators and if we do not  
22 finish we will submit the rest of them.

23          Mr. Brooks, I do not have this question written up but I  
24 would like you to do something again for me. I have been a  
25 budgeteer, until this year, part of the budget process for 28

1 years, Chairman ten times, maybe. Now, you are asking us to  
2 approve how much money for the research on the penetrating  
3 warhead?

4 Ambassador Brooks: Twenty-eight-point-six million  
5 [dollars/?].

6 Senator Domenici: Now, the Senator from California says  
7 that you have [\$/?]500 and some million.

8 Senator Feinstein: Four-hundred-and-eighty-four.

9 Senator Domenici: Four-hundred-and-eighty-four million  
10 [dollars/?] that you are going to spend and she says that is why  
11 she will not vote for it, among the reasons, because that is  
12 what you are going to spend, that is what you are going to do.  
13 Tell me why that number is in there at all.

14 Ambassador Brooks: One of the things we tried to do  
15 starting 3 years ago was to get to true 5-year budgeting so that  
16 when we submitted a budget to the Congress we submitted a 5-year  
17 plan that really meant something, that tried to fit things in.  
18 And that's important for the Congress; it was also important for  
19 us because otherwise you would start things that you couldn't  
20 finish. When we prepared this 5-year plan we had no idea, and  
21 we don't know now, whether the research will show this is  
22 feasible or whether the President will decide to pick it up.  
23 But if he does we wanted to have the wedge to support the  
24 funding in the out-years. So we put the money in there because  
25 it was our interpretation of the right thing to do in terms of

1 making sure the Congress knew the implication of the research  
2 that we were doing and making sure that if the President did  
3 elect, after the completion of the study, that we had preserved  
4 his options financially. It was not intended to suggest that we  
5 made a decision, let alone that we think that you've made a  
6 decision.

7 Senator Domenici: Well I'll tell you, Mr. Ambassador, you  
8 get hit both ways. If you leave it out somebody says you are  
9 underselling the program and it costs a lot more than 27 or 24.  
10 And if you put it in as the outside you get beat over the head  
11 because that is what you are going to spend. But we have to  
12 figure out a way, in the next 5 or 6 weeks, 7, to make the case  
13 that putting that number in does nothing with reference to this  
14 program in terms of its future, that its future is capsulized in  
15 the funding as described to be used that you ask for right now.  
16 I am willing, in this bill, to fight it out. If we lose, we  
17 lose, if we win, I am willing to put any kind of language in  
18 that says that is it. There is no other expenditure. You do it  
19 and no more. And before you do anymore you must get  
20 concurrence. Now, that is all right with you, right?

21 Ambassador Brooks: Yes sir. That's completely what the  
22 law says.

23 Senator Domenici: Okay. Now, let me move to Mr. Beckner.  
24 I understand, Mr. Beckner, that NIF is still at least 6 years  
25 and \$1 billion away from completion of this project. Is it



1 accurate to say that NIF is both the largest laser and the most  
2 expensive diagnostic tool in the NNSA stockpile? When we  
3 develop any technology, we need to ask ourselves, is this  
4 outcome worth the cost? Right?

5 Dr. Beckner: A fair question.

6 Senator Domenici: If you do not achieve ignition, the  
7 American people have purchased a laser that is 25 times more  
8 expensive than the Z Machine, which proved its worth 1 year too  
9 late. It came into existence one year after we started funding  
10 NIF. It is proceeding along as a much cheaper machine but I  
11 think we need to understand that the project is viable before we  
12 spend billions more on the life of this program.

13 So my question to you, how much money are you willing to  
14 spend above ignition? Excuse me, how much money are you willing  
15 to spend to achieve ignition and at what point do you say, we  
16 have spent too much?

17 Dr. Beckner: Our present plan shows the expenditures out  
18 through the year 2010 in the budget that we've submitted, and  
19 it's close to a billion dollars, as you've said. I believe we  
20 need to get to that point in order to, in any sense, have a  
21 chance at achieving ignition. You can't do it with a smaller  
22 laser, based on everything that we know today. That's only part  
23 of the answer, however. The second part really is that absent  
24 ignition, we require this laser for a large number of  
25 applications that are specific to the sustenance and the study

1 of phenomena associated with nuclear weapons themselves. In  
2 other words, it is a very significant element of Stockpile  
3 Stewardship. Ignition, of course, is important, make no mistake  
4 about it, and we will use it aggressively to achieve that goal.  
5 But we do have this additional reason to need NIF. And I don't  
6 want us to forget that.

7 Senator Domenici: Do you mean for the Stockpile  
8 Stewardship?

9 Dr. Beckner: Yes sir.

10 Senator Domenici: Well of course, that is why we put it in  
11 there.

12 Dr. Beckner: Yes sir.

13 Senator Domenici: But if it does not work it does not  
14 matter where we put it, right?

15 Dr. Beckner: Well, there are many things you can do with a  
16 laser without achieving ignition, that's my point. We will use  
17 it for those other.

18 Senator Domenici: But will those help with Stockpile  
19 Stewardship?

20 Dr. Beckner: Yes sir.

21 Senator Domenici: And would we need 5 or 6 billion dollars  
22 to achieve that?

23 Dr. Beckner: No, I think we would not have embarked upon  
24 this mission if we did not believe we had a reasonable  
25 opportunity to achieve ignition.

1 Senator Domenici: Ignition.

2 Dr. Beckner: Yes sir.

3 Senator Domenici: So let me go on. If 2005 budget  
4 specifies that NIF ignition has been delayed until 2014, that  
5 gives me great concern regarding the project. Delaying the  
6 ignition start date is contrary to news that the project is  
7 ahead of schedule. I understand that the laser installation is  
8 18 months ahead of schedule and the beam light infrastructure  
9 was achieved nearly 3 years ahead of schedule. As a result of  
10 these conflicting statements, I am very skeptical as to the  
11 actual status of NIF. To date, [\$/?]2 1/2 billion has been  
12 spent and another billion required before we know whether or not  
13 this project will work. I do not share this all or nothing  
14 attitude because the costs are very high and the budget is very  
15 slim. So I believe we need a more measured approach to address  
16 the significant technical measures and technical challenges that  
17 lie ahead.

18 George Miller, the NIF Associate Director, is he here  
19 today?

20 Dr. Beckner: Not to my knowledge.

21 Senator Domenici: Is he still doing this job?

22 Dr. Beckner: Yes he is.

23 Senator Domenici: Did he move out there?

24 Dr. Beckner: Yes. George is an employee of Lawrence  
25 Livermore National Laboratory.

1           Senator Domenici: Well, whoever sees him, give him my  
2 regards. Thank you.

3           Dr. Beckner: I'll do that.

4           Senator Domenici: Terrific guy. He is the Associate  
5 Director, he stated that the most significant technical  
6 challenge he has is the full ignition of the lasers. I believe  
7 the first cluster, which is 48 lasers, or one-quarter of the  
8 total, would certainly give a clear indication of whether  
9 ignition is feasible. Is that what you think?

10          Dr. Beckner: I believe it's more complicated than that.

11          Senator Domenici: You what?

12          Dr. Beckner: It's more complicated than that.

13          Senator Domenici: Okay.

14          Dr. Beckner: Let me back up to your earlier statement.  
15 First of all, I've met with the staff of this committee as well  
16 as the other three committees to clarify our recent decisions to  
17 change course on some of the milestones in order to pull back  
18 the ignition target to 2010, as opposed to 2014. And we've done  
19 that because of our realization that this committee and the  
20 other committees as well have a very strong view that we must  
21 maintain that schedule. We had allowed it to move out because  
22 of priorities in other elements of the program and without the  
23 full understanding that this was unacceptable. So we have  
24 changed that plan and we've done it also because we've had some  
25 technical progress in target design which make it now possible

1 to do that. So we are very much aware of the committee's  
2 determination that we stay on target with this program. That's  
3 the first part.

4 Secondly, we agree with you that we need more milestones  
5 for this committee and other committees of Congress to track.  
6 We're going to put those in place; we will provide them to you  
7 annually, we'll report to you at regular intervals to be sure  
8 that you are satisfied with the progress of the program.

9 Now, the third part of your question regarding  
10 demonstration of significant events at the time we have one clod  
11 operational, I think is not likely to be--we would not want to  
12 see that as an end point. That's my concern. We certainly  
13 would see that as a very important target in program progress  
14 and we will have that as a goal.

15 Senator Domenici: Well, I am going to yield here shortly  
16 because I understand these Senators have more interest than just  
17 NIF. But I am not finished with you, even if we have to do it  
18 another day. I have two questions. First, I want everybody  
19 here to know that I know him very well; he worked in my State  
20 and, you know, I have been with him many times when he was not  
21 in such a hard position. And he smiles no matter, when he was  
22 doing the other work or this so, I guess it does not really  
23 matter. He has got a good brain.

24 Dr. Beckner, I would like you to put together a budget and  
25 a schedule that will accelerate the installation and testing of

1 the first cluster in Fiscal Year 2005. Can you do that?

2 Dr. Beckner: I really don't--I can certainly put together  
3 the plan. I don't know the results of your instructions but  
4 we'll certainly be responsive to your request.

5 Senator Domenici: Now, I want to state, and then I yield  
6 and will come back for a number of questions. I want to say,  
7 you know how I feel right now, Dr. Beckner, is that I have been  
8 hoodwinked. And not a little hoodwink, a big one. Because I  
9 think what we are going to get out of this is a big civilian  
10 tool that can be used at that laboratory for a lot of research.  
11 And we are going to run around saying that is the best research  
12 laser facility the world has ever seen. And I tell you, if I  
13 see that coming, they better not be asking me for any money  
14 because I would close it down. Because that is not fair. We  
15 never intended to spend 5 to 6 billion dollars to build a laser  
16 facility for a laboratory that would provide civilian research  
17 and visitations from around the world. So I know you all look  
18 at this and say well, it is going to do something. And it is  
19 sure going to be extraordinary. But that is not why I agreed to  
20 pay for it.

21 Dr. Beckner: I understand.

22 Senator Domenici: I agreed in a very, very highly debated,  
23 that this was going to reach ignition and that would be the best  
24 part of science-based stewardship. Think of that. The best  
25 part. Now right now we are moving with Z also.

1 Dr. Beckner: Yes sir.

2 Senator Domenici: And we are.

3 Dr. Beckner: Yes sir.

4 Senator Domenici: And nobody is going to stop us from  
5 doing that. It may do three-quarters of the work but it is a  
6 little tiny weeny \$100 million project and it may do three-  
7 quarters of your work, or more. So, in any event, we will make  
8 sure that everybody understands that.

9 Now, Senator Bennett, you are next. We are going on time  
10 of arrival, and then the Senator from California.

11 Senator Bennett: Thank you very much, Mr. Chairman.  
12 Ambassador Brooks, I think I heard the answers to my questions  
13 in your statement but let us go over them again so that they are  
14 very clear.

15 There is a moratorium currently in place. Is that correct?

16 Ambassador Brooks: Yes sir.

17 Senator Bennett: And testing is not imminent, is that  
18 correct?

19 Ambassador Brooks: That's correct.

20 Senator Bennett: You said that there is no anticipation of  
21 testing at any foreseeable time in the future. Is that correct?

22 Ambassador Brooks: Do not now foresee.

23 Senator Bennett: None that you can now foresee?

24 Ambassador Brooks: That's correct.

25 Senator Bennett: And that the testing will not happen

1 unless the President makes a very public finding and the  
2 Congress acts in funding that finding. Is that correct?

3 Ambassador Brooks: That's correct.

4 Senator Bennett: So the newspaper stories, I think I heard  
5 you say, are not correct? That say that nuclear testing is now  
6 imminent as a result of the vote we took last year?

7 Ambassador Brooks: I haven't seen stories that blamed me  
8 for that one but in any event if there are such stories they're  
9 not correct.

10 Senator Bennett: Not you, they blame us. So there is no  
11 testing pending at the present time?

12 Ambassador Brooks: No sir.

13 Senator Bennett: Or in the future circumstances that you  
14 currently can see?

15 Ambassador Brooks: No sir.

16 Senator Bennett: All right.

17 Ambassador Brooks: But I don't want to mislead the  
18 committee. If I find a problem that can only be verified  
19 through testing I would not hesitate to recommend to the  
20 Secretary and he would not hesitate to recommend to the  
21 President that we test. I have no reason to believe I'm going  
22 to find that problem but it is a hedge against the possibility  
23 of finding that problem that we've asked for the money to ensure  
24 that we are ready if that contingency occurs. We have no reason  
25 to believe it's going to occur.



1        Senator Bennett: All right. Here is a postcard that is  
2 currently circulating. I am sure you have seen it. I get  
3 copies of it. I cannot respond to most of them because they do  
4 not put return addresses on them, they just send them in. And  
5 it says, for those that are not familiar with it, "This is an  
6 underground nuclear test." And it shows an obvious spew into  
7 the atmosphere. Would you comment on that, because it has great  
8 currency right now.

9        Ambassador Brooks: Yes sir. The United States started  
10 doing only underground tests following the limited test ban  
11 treaty in the early 1960's. In 1970, a test called Bainberry  
12 vented. That is to say, although we thought it would all be  
13 contained, it was not. Radioactivity was spread off the test  
14 site to an area north and west of the site, all within Nevada;  
15 there was no radioactivity above background levels detected in  
16 Utah, although there had, obviously been fallout in Utah and  
17 indeed worldwide and from the atmospheric tests of the 1950's  
18 and 1960's. After Bainberry we took a 6-month moratorium on  
19 underground tests. Now, in the context of today, when we  
20 haven't tested for a year, that Doesn't sound like much but in  
21 the 1970's when we had a very robust test program that was a  
22 significant step. We made a number of both analytic and  
23 technical corrections. We decided to make sure--what had  
24 happened was, there was a fissure, a crack in the Earth that we  
25 had not detected. So first, we required that for future tests

1 we drill more exploratory holes to make sure we find fissures.  
2 We included an evaluation panel that included both testing  
3 experts and geologic experts to evaluate the containment design  
4 of each test and then we required that those findings be peer-  
5 reviewed, in accordance with standard scientific procedures. We  
6 set up a series of environmental monitoring stations and those  
7 networks operated continuously.

8 Now, that was a long time ago. But we have not had a  
9 repeat of Bainberry. We had some far less significant events,  
10 three I believe, in the 20-some odd years following that, two of  
11 which resulted in nothing leaving the test site. We are  
12 confident that with the combination of the corrective action we  
13 put in place then and the greater scientific understanding that  
14 we have now of geology and hydrology, and the greater formality  
15 that we build into all aspects of nuclear safety, and the  
16 funding that the Congress has given us in the last 2 years to  
17 make sure we do careful safety analysis, that if, at some future  
18 date, the President decides we need to do an underground test  
19 there will be a policy debate but there won't be any public  
20 health issue because we are confident that we will make sure  
21 that we do not have a repeat of that 1970 event.

22 Senator Bennett: So just to summarize what you have told  
23 me, since this occurred in 1970, for the intervening quarter of  
24 a century, there has never been a reoccurrence of something like  
25 this postcard?

1           Ambassador Brooks: There has certainly nothing been like  
2 that. There has been minor venting, nothing like that, most of  
3 it did not leave the test site, on I believe three occasions.

4           Senator Bennett: How many tests are we talking about? If  
5 we had three occasions, is that three out of thirty or?

6           Ambassador Brooks: Between 1970, in 22 years, oh, I don't  
7 know. I'd have to give you that for a record, a couple hundred.

8           Senator Bennett: Couple hundred?

9           Ambassador Brooks: Yes sir. Let me supply that for the  
10 record to make sure I'm giving you the right answer.

11          Senator Bennett: I would appreciate knowing that, for the  
12 record, so that, we are within 1 percent?

13          Ambassador Brooks: I think so sir, yes sir.

14          Senator Bennett: And I would like to know the date of the  
15 last one.

16          Ambassador Brooks: Yes sir. Be more than happy to supply  
17 that.

18          [The information follows:]

19          INSERT 51A TO COME-CARRY

1           Senator Bennett: So that if it was 15 years ago there is a  
2 little bit higher sense of confidence than if it was 5 years  
3 ago, when the last leak.

4           Ambassador Brooks: Yes sir.

5           Senator Bennett: I would appreciate it.

6           Ambassador Brooks: It was more than 12 years ago because  
7 we've done no testing in the last 12 years.

8           Senator Bennett: Okay. You say you want to do research,  
9 that there is no pressing indication now that that research  
10 would lead to testing, indeed, there is nothing you have in your  
11 mind that would suggest that it would lead to testing. But you  
12 want to do the research anyway. Are you aware of research that  
13 is being done outside of the United States that you feel you  
14 want to catch up with? Is that part of the impetus here?

15          Ambassador Brooks: There are multiple impetuses. We don't  
16 want to be surprised by developments outside of the United  
17 States. That's one reason for looking at advanced concepts and  
18 making sure that you understand what the laws of physics will  
19 allow. But I think we also want to make sure that we are paying  
20 attention to maintaining the safety and reliability of the  
21 existing stockpile. So I think there are multiple reasons why  
22 we want to look. I don't rule out that someday the President  
23 will want us to have a capability that we don't have. Nuclear  
24 Earth Penetrator, in my view, both as a matter of practice and  
25 as a matter of law, is a capability we sort of have now, we're

1 just trying to make it better. So that's a somewhat special  
2 case. But the principle reason for advanced concepts and the  
3 projects that we have looked at are primarily, I think,  
4 motivated by making sure we're not overlooking an opportunity to  
5 improve safety, security and reliability. There's a secondary  
6 motivation to make sure that we are not subject to technological  
7 surprise by someone outside this country. We know that there is  
8 a vigorous program in Russia. We don't understand everything  
9 we'd like to and I can't, in an open hearing go into what we do  
10 understand. Some of the things they're doing we don't  
11 completely understand so it would be useful to make sure we  
12 understood the technology. But I think we're more motivated by  
13 safety, security and reliability than by sort of a technological  
14 keeping up with others.

15 Senator Bennett: All right. But I want to get back to one  
16 of the things you said when you outlined the reasons for looking  
17 at existing warheads to see if they can be adapted. Clear  
18 military utility would move only if the President approves and  
19 Congress funds. And number three caught my attention because I  
20 have not seen it before. Maybe I have not been paying  
21 attention. When you say this is not a change in our policy,  
22 that this is deterrence.

23 Ambassador Brooks: Yes sir.

24 Senator Bennett: If that is the case, that means, for  
25 example, this would not have been used in Iraq. Let's assume

1   there was a circumstance where this particular weapon that you  
2   are researching, or this adaptation, let me get the words right,  
3   that this adaptation of a weapon that you are researching, might  
4   strike the Joint Chiefs as being a good weapon to use in Iraq.  
5   Under no circumstances would that be considered a deterrent to  
6   anyone else who might attack us. So you are saying it is the  
7   position of this administration that the weapon would not be  
8   used in that circumstance, even if it were available.

9       Ambassador Brooks: We have, as a matter of policy, in  
10   every administration I am familiar with, been very careful not  
11   to make dogmatic statements about what a President will or will  
12   not do in support of national security. And I don't want to be  
13   the one to break that tradition. Let me explain what I did  
14   mean.

15       Senator Bennett: Okay. I will accept that. You do not  
16   need to go any farther than that.

17       Ambassador Brooks: Okay.

18       Senator Bennett: But, just to make the comment, that if  
19   indeed this President or some future President, we are going to  
20   decide who is going to be President, come November, this  
21   President or some future President were to come to Congress  
22   while I was sitting in Congress and say, okay, we have done the  
23   research, we think this is a viable weapon, we want now to fund  
24   it and we are going to use it in a situation quite like Iraq,  
25   this Senator would not vote in favor of that. My view of a

1   deterrent and the use of the nuclear stockpile through the Cold  
2   War, is that it is never used unless the other side puts you in  
3   a position where you do it. You never use it as an offensive  
4   weapon, you never use it in order to project American power.  
5   You use it held in reserve as part of the deterrent capacity of  
6   the United States of America, which is the Polaris submarines  
7   and their nuclear weapons and all of the rest of them. The  
8   Polaris submarine has never fired a nuclear weapon in an  
9   offensive way and it is there to say to a potential aggressor,  
10  if you proceed with your aggression, this is what awaits you.

11       Ambassador Brooks: That's correct.

12       Senator Bennett: And just for the record, that is how I  
13  would view, if such a weapon at some point by some future  
14  President were ever proposed. In the context of what you have  
15  said I would view that as having to have that same kind of  
16  restriction that I currently see on Polaris weapons, Polaris  
17  missiles and so on. I will not put you into that box. I  
18  understand that you cannot make that firm statement because you  
19  are a member of the administration. But I can make that  
20  statement because I am answerable to the people of Utah, all of  
21  whom have a very great concern, which I most thoroughly share,  
22  that we do not want to disarm this country, we do not want to do  
23  anything that will harm our national security. But in the end  
24  we want to make sure that as we move down the road to protect  
25  our national security we do not, in any way, endanger the health

1 and safety of any of our citizens, regardless of the state in  
2 which they live. I am assuming you could support that.

3 Ambassador Brooks: I'm confident I can speak for the  
4 President on this one. We agree with that. We have no interest  
5 in harming health and safety of anybody, sir.

6 Senator Bennett: We just may give you a little help  
7 legislatively at some future point. I have not made up my mind  
8 firmly as to what I might do in terms of legislation that I will  
9 offer. But I appreciate your assurance and we want to do  
10 everything we can on this side to make sure that that assurance  
11 is not forgotten by whomever replaces you in whatever kind of  
12 administration that might come along.

13 Ambassador Brooks: Yes sir.

14 Senator Bennett: Thank you, Mr. Chairman.

15 Senator Domenici: Thank you, Senator. I do not know how  
16 long you are going to stick around but I have some different  
17 views than you. I am not going to make them until it is my  
18 turn. Senator?

19 Senator Feinstein: Thank you very much, Mr. Chairman.

20 Ambassador Brooks, I just want to get some of the figures. I  
21 think we have anticipated that the Nuclear Earth Penetrator  
22 figure, 5-year figure, is \$484 million. Does that take us up to  
23 phase 6.3?

24 Ambassador Brooks: Actually I think it takes us beyond  
25 6.3. So those numbers assume decisions we can't make without



1 your permission.

2 Senator Feinstein: Okay, at 6.3, according to Defense  
3 Authorization Bill, the Earth Penetrator needs authorization  
4 from Congress?

5 Ambassador Brooks: Yes ma'am.

6 Senator Feinstein: So it is somewhere, I would like to  
7 know for the record, how much will be spent up to that point.  
8 What is the 5-year figure on the battlefield low-yield nuclear  
9 weapons?

10 Ambassador Brooks: Senator.

11 Senator Feinstein: Well, give me the advance concepts.

12 Ambassador Brooks: Do you remember? Is it [\$/?]9 million  
13 a year?

14 Senator Feinstein: Number for 5 years?

15 Dr. Beckner: I think it actually goes a bit beyond that.

16 Ambassador Brooks: I'll get it for the record, Senator.

17 Senator Feinstein: Okay. And the 5-year figure for the  
18 pit facilities.

19 Ambassador Brooks: Yes ma'am. May I get that for the  
20 record as well? Although I may have that here.

21 Senator Feinstein: Okay. Now, as I understand it,  
22 the Advanced Weapons Concept will not require Congressional  
23 approval prior to going into the engineering phase. Is that  
24 correct?

25 Ambassador Brooks: I'm always reluctant to give away

1 prerogatives but I didn't think.

2 Senator Feinstein: Defense Authorization Bill, page 855.

3 Ambassador Brooks: I mean.

4 Senator Feinstein: And it is just the, unfortunately, just  
5 the Robust Nuclear Earth Penetrator.

6 Ambassador Brooks: The Advanced Concepts work is really  
7 less far along. I mean, as a practical matter for us to take  
8 something that came out of an Advanced Concept and do something  
9 significant with it, at a minimum we would require Congressional  
10 line-item funding. Whether we would need, I mean, you're  
11 correct that the authorization bill speaks specifically of 6.3,  
12 other legislation speaks of production. That unambiguously  
13 requires a separate decision by Congress. If you're asking a  
14 technical legal question I'd like to get back to you for the  
15 record. If you're asking a practical question, of course  
16 nothing that we do in Advanced Concepts can move into any sort  
17 of meaningful program without the Congress because we have to  
18 come back to you for money.

19 Senator Feinstein: I am trying to find out is how much are  
20 we going to spend, up to the point of engineering build on these  
21 programs. What is the total five-year cost up to that point of  
22 these three programs, NEP, Advanced Concepts, Pit?

23 Ambassador Brooks: All right. May I provide that to  
24 record to make sure I'm precise.

25 [The information follows:]

1    INSERT 59A TO COME-CARRY

2           Senator Feinstein:  I would appreciate it.  Now, we have  
3  discussed this and--

4           Senator Domenici:  Senator, would you yield for a moment?

5           Senator Feinstein:  Of course.

6           Senator Domenici:  First step, I would like to make the  
7  point and seek your thoughts, Senator.  Here we have the  
8  Penetrator and whatever we are doing with reference to its  
9  research, and we are going to look carefully at building a plant  
10 to make pits.  If this idea had never been invented we would  
11 still be doing this.

12          Senator Feinstein:  You mean the pit?

13          Senator Domenici:  Yes.

14          Senator Feinstein:  Yes.

15          Senator Domenici:  It has nothing to do with it.

16          Senator Feinstein:  To field old warheads that are in  
17 stock, right.

18          Senator Domenici:  Yes.  So, you know, when we talk about  
19 and add them up, the public assumes that they are in some way  
20 related so that all this money that we're spending for the Pit  
21 is related to this work for the Penetrator, they are unrelated.  
22 I mean, you are out there thinking about how many more years can  
23 we not have a Pit, right?  It has nothing to do with whether we  
24 build Penetrators, right?

25          Ambassador Brooks:  That's correct.

1           Senator Feinstein: You are correct, Mr. Chairman, as  
2 always. However, there is one thing. The money for the Pit is  
3 huge. And it is based on 450.

4           Senator Domenici: Correct. It might be too much.

5           Senator Feinstein: And it may well be very much too much  
6 because a study has not been completed yet to let us know  
7 whether it is 30 or 40 years or whatever we would need the Pit.

8           Ambassador Brooks: May I, may I make a correction?

9           Senator Feinstein: Of course, please.

10          Ambassador Brooks: We are required, under the National  
11 Environmental Policy Act, and we do an analysis, we have to be  
12 able to look everybody in the eye and say there's no plausible  
13 alternative that has been excluded. So the Environmental Impact  
14 Statement that we've now suspended work on, analyzes between a  
15 capability of 125 a year and 450 a year. I think it would be, I  
16 don't want to prejudge decisions that haven't been made, but  
17 it's very hard for me to see, based on what we know, that we're  
18 going to be anywhere near that upper limit. But I've got to  
19 make sure that the analysis is broad enough, because if there's  
20 an option that's outside this analysis I'm in violation of the  
21 law because I haven't examined all analyses. So I would urge  
22 you not to look at the upper limit of what we're analyzing under  
23 the National Environmental Policy Act and assume that that's a  
24 program. The lower level is probably roughly right. I could  
25 explain why now but it would be easier if you'd let me send you

1 a paper.

2       Senator Feinstein: I would appreciate that. For somebody  
3 like me, when you use 450, you send a major signal that a whole  
4 major new program is going into place. At 125, it may be a  
5 servicing unit, you know, based on what you need to do to  
6 replenish and fix old stock. But I am very suspicious. I think  
7 I know where you are going and I think it is a wolf in sheep's  
8 clothing. I think to spend all this money on the Nuclear Earth  
9 Penetrator, which as I understand it will produce 1.5 million  
10 tons of radioactive debris that is going to spew out with no  
11 present way of controlling it is beyond sanity. I mean, I do  
12 not know why anyone would even want to do that.

13       Let me ask you this: is there any known way, from a physics  
14 point of view, because I have spent some time now, with Dr.  
15 Drell, of containing the radioactive fallout from 100 kiloton  
16 nuclear bunker buster?

17       Ambassador Brooks: There's no way that I know of, I don't  
18 know of anyone in the administration who advocates that and  
19 nothing in our proposal for the Earth Penetrator or for the  
20 previous 61-11, which was the previous administration's less  
21 robust penetrator, was ever intended to suggest that you can  
22 contain fallout; you can't. I have no idea how you would do  
23 that. And, as I think you and I have discussed before, if I  
24 have said or anyone in this administration has said, anything  
25 that suggests that we believe that nuclear use is anything other

1    than absolutely horrible and a decision a President would only  
2    take in the most severe circumstances, then we have misspoken.  
3    The issue that we have is, there are facilities in the world  
4    that are beyond our ability to threaten except with nuclear  
5    weapons. We think it is possible that the country may decide it  
6    wants to threaten those facilities anyhow. We think we ought to  
7    spend some money to find out if this country can have that  
8    decision by finding out whether I can take an existing weapon  
9    and threaten those facilities.

10       Senator Feinstein: All right. Just for the sake. But you  
11    know you cannot contain the fallout.

12       Ambassador Brooks: That's correct.

13       Senator Feinstein: And you know how big you have got to  
14    get to get down deep enough let alone have the sufficient casing  
15    to enable the weapon to go down that deep. Therefore you are  
16    going to have tremendous radioactivity.

17       Ambassador Brooks: Yes ma'am.

18       Senator Feinstein: So why does it become even a viable  
19    option? If used in North Korea you jeopardize Japan, you  
20    jeopardize South Korea. Who in their right mind would ever do  
21    this?

22       Senator Domenici: Senator, would you yield?

23       Senator Feinstein: Of course.

24       Senator Domenici: Senator, the problem with the argument  
25    is, I have heard you here and I do not think you are for

1    disarmament, are you, of our nuclear weapons? Do you want to  
2    get rid of them all?

3           Senator Feinstein: Well, I will tell you, I am for no  
4    first use, which is not yet our policy.

5           Senator Domenici: That is not my question. Do you want us  
6    to have some or not have some?

7           Senator Feinstein: I am not for the Nuclear Posture  
8    Review. You asked a question.

9           Senator Domenici: Yes.

10          Senator Feinstein: That cites seven nations against whom  
11    we would countenance a first use of nuclear weapons. I am not  
12    for that.

13          Senator Domenici: I understand.

14          Senator Feinstein: Therefore, when we are going to spend a  
15    half-a-billion dollars up to engineering to develop a 100-ton  
16    nuclear bunker buster, which you cannot contain the radiation, I  
17    have got to wonder well, who is smoking something? Why are we  
18    doing this if you cannot contain the radiation?

19          Senator Domenici: Senator, I do not know who is smoking  
20    it, but let me tell you. There is more radiation exposure,  
21    uncontrollable, from existing nuclear weapons than from the  
22    underground bunker possibility. So the logic is, we should not  
23    have any of those because there is no way to control a nuclear  
24    explosion, the radioactivity, from the hydrogen bombs we have.  
25    And I do not know today how many we have but down from many

1 thousands to a controllable number. But the issue is not an  
2 issue of damaging the world. Because if that is the issue, we  
3 have got to get rid of all of our nuclear weapons in the event  
4 that we are saying we do not want to harm anything. They are  
5 there so that nobody will ever use them. That is why they are  
6 there.

7 Senator Feinstein: But that is not the issue. The issue  
8 is, these are new classes of nuclear weapons.

9 Senator Domenici: But the argument that they are going to  
10 pollute the world more than the weapons we have is not a valid  
11 argument. The rest of your arguments are valid but not the  
12 pollution argument.

13 Senator Feinstein: You were out of the room when Senator  
14 Bennett made a very interesting point, and the point was one of  
15 deterrence, and what is, in effect, a deterrent. And a nuclear  
16 arsenal of missiles may well be some form of deterrent. A  
17 nuclear Earth Bunker Buster, I do not see as a deterrent. And  
18 if we are going to build tactical battlefield nuclear weapons,  
19 God help our sons and daughters that go on that battlefield. So  
20 I become very upset. And Ambassador, you say the included out-  
21 year funds are only to preserve a President's option. And then,  
22 if you think about the option, how would a President ever, ever  
23 say, use a 100-ton--Hiroshima was 15 kilotons--use a 100-kiloton  
24 nuclear Earth Penetrator and have no way to control the nuclear  
25 fallout, the radioactive fallout?



1           Ambassador Brooks: May I try it?

2           Senator Feinstein: Of course.

3           Ambassador Brooks: First of all, part of the problem in  
4 open hearings is that we can't talk about specific yields. But  
5 let me just make the technical point that if there is a bunker  
6 that you want to hold at risk, it takes far more energy if it  
7 bursts in the air to hold that at risk than it does if you can  
8 get it just a little way into the ground. So it is quite  
9 possible that a penetrator can be of lower yields. But the more  
10 general point, I think, is the problem we've always had with  
11 deterrents, Senator. On the one hand, nobody can think of a  
12 situation in which a rational human being would want to use  
13 nuclear weapons. On the other hand, in order to deter we have  
14 to tell people who think differently than we that if they did  
15 something that was so serious that it would warrant retaliation,  
16 we're capable of doing it. It is the case that increasingly, we  
17 believe, facilities can be put where we cannot reach them with  
18 existing nuclear or conventional capabilities. It is the case,  
19 we believe, that at least some dictators--I don't want to  
20 suggest any country that anybody would make any plans, I would  
21 simply point out that the popular countries to talk about lately  
22 are countries in which it's clear the leadership, whatever else  
23 they value, doesn't care about the suffering of their people.  
24 And their people are, in fact, victims. So we need to be able  
25 to tell those leaders there is nothing you can do that is beyond

1 the reach of American power. And the question that the country  
2 will have to decide is whether or not, in order to be able them  
3 that--first, ideally we would like to be able to tell them  
4 conventionally. And a whole different department spending a  
5 whole different set of money is working to improve that. My job  
6 is to say, suppose conventional doesn't work, can we do  
7 something with a nuclear weapon and then, if we can, then  
8 there's the question is it worth both the financial and the  
9 policy cost? It's a perfectly fair debate but I guess I don't  
10 accept the view that it's only worth spending this money if  
11 we're prepared, as soon as we have this, to go out and start  
12 using it casually. I think this is an example of improving  
13 deterrents, just like the various things, many of them  
14 contentious at the time, that we did during the Cold War, for an  
15 example, of improving deterrents.

16 Senator Feinstein: I will not belabor it. I appreciate  
17 the time. I profoundly differ with you.

18 Senator Domenici: You what?

19 Senator Feinstein: I profoundly differ. I think morally,  
20 ethically, to create weapon systems that are so bizarre and so  
21 catastrophic goes beyond the moral code. I really do.

22 Ambassador Brooks: Yes ma'am, with the greatest respect,  
23 and I think to have only the ability to destroy cities and kill  
24 people has its own set of problems.

25 Senator Domenici: Let us proceed. Let us make sure we

1 understand here where some of us are. I do not know whether I  
2 feel comfortable using the word profound so I will not use it  
3 but whatever I use it equals profound. But I am profoundly  
4 concerned if we have nuclear weapons at all. I wish we could  
5 get rid of them all. I wish we could find a way that we do not  
6 need them and that we could prove that nobody else would ever  
7 have them, which is going to be the issue, so that we could get  
8 rid of them. I am terribly concerned that the damage that one  
9 of them might do, that we do have, and I am not supporting  
10 anything, ever, that says we should have more nuclear weapons in  
11 our arsenal. I should not say ever but right now we are  
12 building them down, not upward. In fact, we are having a  
13 terrible time building them down as fast as we can because we  
14 cannot get rid of the pollution that is coming out of them. I  
15 mean, we cannot get rid of plutonium fast enough as we destroy  
16 Russian nuclear weapons. We cannot find a way to do it. You  
17 are in charge of one now, we cannot even get them to agree on  
18 something so we can get rid of them, right?

19 I am going to just close by saying the biggest change in  
20 American policy, overruling policy since President Carter said  
21 we will build a MOX refinery in America. And we had said no,  
22 never, never. He said, we will build it if the Russians will  
23 build it because we will both get rid of plutonium that way.  
24 Right?

25 Ambassador Brooks: Yes sir.

1           Senator Domenici: So we made a profound change in our  
2 policy. I would have never been against the MOX but I mean, the  
3 President's decided against it, I would give you the reasons, I  
4 think you would not agree that his reasons were right. The  
5 reason was to build MOX you enhanced the production of fissile  
6 material to produce bombs. Turned out nobody in the world ever  
7 did it, so probably the fear was not there. So here we come  
8 along and what changes it? The Russians change it because they  
9 are going to do it, we say we will do it. Now we cannot get it  
10 done because we cannot get an agreement, right? That is a tough  
11 one for you.

12           Ambassador Brooks: That's right, sir.

13           Senator Domenici: Okay. So, I am on the side of trying to  
14 get rid of this stuff. I do not want them to use it again, I do  
15 not want us running around, leaking around, being transferred  
16 around. So, my record is pretty good on that.

17           Now, I want to just be parochial and I want to tell you  
18 that I do not like the idea of the Los Alamos schools being  
19 treated differently all of a sudden than they have been for a  
20 long time. If you want to treat them differently, Mr.  
21 Ambassador, then we ought to start treating them differently and  
22 give them an opportunity to be treated differently over a long  
23 period of time. Either buy them out or something be done  
24 elsewhere but just say this year they do not get funded and so  
25 you did not put it in the budget, you know I have to find it

1 somewhere so I will. But I am just telling you I do not think  
2 it is the right way to do it. And you have to get a team and  
3 let us get started finding out how do we solve this problem, not  
4 just the budget issue.

5 The Z Machine, very quickly, I just want to make sure that  
6 I am correct, that it is being maintained and the little bit of  
7 money that is needed for it is going to be there and that is  
8 moving ahead?

9 Dr. Beckner: Yes sir.

10 Ambassador Brooks: Yes sir.

11 Senator Domenici: And everybody is satisfied with its  
12 performance?

13 Dr. Beckner: Yes sir.

14 Senator Domenici: Is it a good piece of equipment for the  
15 price?

16 Dr. Beckner: Yes sir.

17 Senator Domenici: Will not take the place of what we  
18 expected NIF to do, right?

19 Dr. Beckner: No sir. It is not of adequate size to do  
20 that.

21 Senator Domenici: But if NIF fails if may do what a failed  
22 NIF will do?

23 Dr. Beckner: That's a possibility and we certainly intend  
24 to continue to support that program and to have milestones in  
25 that program so that we can measure its progress.

1           Senator Domenici: Mr. Longworth, have you read the "Wall  
2 Street Journal" article, how the Pakistani nuclear ring managed  
3 to skirt export laws?

4           Mr. Longworth: Yes, I have.

5           Senator Domenici: Are you receiving adequate international  
6 cooperation in stopping the activities outlined in this article?

7           Mr. Longworth: We are working very diligently on that.  
8 In fact, we've asked for an increase in our budget this year to  
9 address those kinds of--

10          Senator Domenici: You haven't not **[:delete/?]** got  
11 everything you need yet?

12          Mr. Longworth: Well, we hope to if we get this increase  
13 we've asked for in our budget, yes sir.

14          Senator Domenici: Mr. Ambassador, what is the likelihood  
15 that the liability issue will be resolved in a timely fashion so  
16 we can move ahead with construction so we can get rid of some of  
17 that plutonium that is sitting around in Russia and America?

18          Ambassador Brooks: I am hopeful that we will get it  
19 resolved soon but the last 12 years have told me predicting  
20 Russia is risky. And I just don't know. The problem is not in  
21 this country; the problem is in the Russian Federation.

22          Senator Domenici: Okay. So it is high enough that we  
23 ought to encourage our President, if we can, to ask the Kremlin  
24 to get with it on this one?

25          Ambassador Brooks: Yes sir.

1           Senator Domenici: This Libya situation. We added \$5  
2 million, I think, in the Senate to initiatives focused on  
3 removing nuclear weapons, useable material from volatile sites  
4 around the world. I understand your office was able to make use  
5 of this earmark to quickly respond in the Libyan situation?

6           Mr. Longworth: Yes sir. Let me just say, we would not  
7 have been able to respond quickly without that authorization.

8           Senator Domenici: I am glad we did it. The role your  
9 office and the Department played in removing the nuclear  
10 materials, can you explain that in a minute or two?

11          Mr. Longworth: Yes sir. We had three missions into and  
12 out of Libya. The first mission was using the money you just  
13 referred to to immediately remove the core of their nuclear  
14 weapons capability, nuclear fuel cycle capability. We removed  
15 key components, not all of the components, but the components  
16 that would, if we had not been invited back, would have left  
17 useless what remained in the country. The second shipment was a  
18 fairly large shipment which has just arrived back in the United  
19 States of the remaining centrifuge parts and it is back in the  
20 United States now. The third shipment was to remove the HEU  
21 fuel, fresh fuel, from the Tajura reactor. That was sent back  
22 to the Russian Federation. That material was under I.I.A.  
23 safeguards, it was accounted for, they were legally allowed to  
24 have it but they agreed to remove it at our request and it went  
25 back to Russia. It will be recycled back into civilian low-

1 enriched fuel.

2 Senator Domenici: Good. Well, Senator, do you have any  
3 other questions?

4 Senator Feinstein: I have one quick question. When we  
5 discussed, and I will just put it in a general category, the  
6 warhead redesign, the general fixing that may have to be done,  
7 does that come out of any of these programs' budget? The  
8 Advanced Concepts, the Pit, the Earth Penetrator?

9 Mr. Longworth: If we look at problems with fixing an  
10 existing warhead that's usually done as part of the Life  
11 Extension Program, which is a separate line item.

12 Senator Feinstein: That is in another?

13 Mr. Longworth: Yes ma'am.

14 Senator Feinstein: So nothing in this goes for that?

15 Mr. Longworth: In general that's correct, ma'am.

16 Senator Feinstein: Thank you.

17 Senator Domenici: Thank you, Senator.

18 Senator Feinstein: Thank you.

19 Senator Domenici: That is a very good hearing because you  
20 came. Thank you.

21 Senator Feinstein: Thank you.

22 Senator Domenici: We will have another big fight, huh?

23 Senator Feinstein: Oh, I welcome it.

24 Senator Domenici: The thing is, we get a second round,  
25 they may win it before.



1           Senator Feinstein: You never know, you never know.

2           Senator Domenici: See and then ours might not be terribly  
3 relevant because they already won in Armed Services. If they  
4 lose--

5           Senator Feinstein: Well, we will try with the House.

6           Senator Domenici: We lose in Armed Services we are in  
7 terrible shape. You will win.

8           Nuclear Stockpile Report.

9           Ambassador Brooks: Yes sir.

10          Senator Domenici: Mr. Ambassador, I noted in the opening  
11 statement that you talked about it and I am very disappointed  
12 that the Department of Defense and Energy have not produced the  
13 Stockpile Report that requested. I think the distinguished  
14 Senator who is here because of what she worries about, ought to  
15 be very concerned that we do not have that report. Priorities  
16 of the future seem to be very much dependent upon it. So, Mr.  
17 Ambassador, it is the fault of the government of the United  
18 States that we do not have it, right?

19          Ambassador Brooks: Yes sir.

20          Senator Domenici: Should have been done.

21          Ambassador Brooks: Yes sir.

22          Senator Domenici: Will it be done?

23          Ambassador Brooks: Yes sir.

24          Senator Domenici: When?

25          Ambassador Brooks: I don't know.

1           Senator Domenici: Well, that is not good enough.

2           Ambassador Brooks: I don't want to make promises to the  
3 Senator that I can't keep.

4           Senator Domenici: Okay. But give me some talk. Are you  
5 working on it? Who is holding it up?

6           Ambassador Brooks: The Secretary of Defense said it would  
7 be submitted in the spring. Spring started 2 days ago. It is  
8 being worked on, literally, as we speak, but because of the  
9 importance I think this will have to be personally **[word**  
10 **missing/?]** by the President and I can't predict how long that  
11 will take.

12          Senator Domenici: Okay. I am going to wrap up the hearing  
13 in just a minute. And Senators that are here or not here that  
14 want to submit questions, please do so. Thank you.

15          I want to share something with you just before we close  
16 this hearing. I do not know if I should be talking about this  
17 issue of America with you, but it is going to be science that is  
18 going to make the breakthrough, be it one or ten, that will once  
19 again start creating jobs in America, so that when productivity  
20 increases we will see jobs instead of what we are seeing now as  
21 productivity and no jobs. Most crazy arrangement of economics  
22 we have ever seen. It would seem to me the breakthrough with  
23 brand new technology and innovative things is going to do it.  
24 Where it will come from, I do not know. I have been pondering  
25 what we could do in the Federal Government as an incentive to

1 have it happen quicker but that is too tough for me. But I have  
2 some people thinking about it. But frankly, I think you have  
3 more to do with it than people think, because you have the  
4 greatest array of scientists and engineers, when you add your  
5 three labs up, of anywhere in the world. And when you take the  
6 Mesa Facility and the CMR facilities, and those are needed for  
7 the stockpile, but everybody knows that nano-science and micro-  
8 engineering, somewhere from those is going to come that  
9 breakthrough. And the center for it was supposed to be Sandia  
10 National Laboratories in a facility we started because of some  
11 things that nano-science may do for the nuclear weapons. Now,  
12 we can let an institution see and live its day and not do what  
13 it is supposed to do because we do not fund it on time. Or we  
14 can think it is important enough and fund it. So I am  
15 complaining to you that your budget will cause a very big delay  
16 in providing the facilities that are not there, that you cannot  
17 expect great scientists to work in. If you ever saw what they  
18 are working in, they are not going to make the innovative  
19 breakthroughs that we are talking about there. And so I think  
20 the 50 percent reduction in the expected continuation of the  
21 building is not right. I urge that you be considerate of our  
22 efforts to move it back on a path, that it might get built  
23 sooner. Now, that is enough. If you want to comment, fine. If  
24 not.

25       Ambassador Brooks: I think yes sir is the appropriate

1 thing for me to say.

2 SUBCOMMITTEE RECESS

3 Senator Domenici: Okay. With that, we have a number of  
4 hearings for this subcommittee this year and they will be  
5 interesting, but we stand recessed.

6 [Whereupon, at 4:25 p.m., Wednesday, March 23, the  
7 subcommittee was recessed, to reconvene subject to the call of  
8 the Chair.]